DOCUMENT RESUME

ED 237 145 JC 830 532

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TITLE Survey of Teaching Methods of Brookdale Community College Full-Time Teaching Faculty.
INSTITUTION Brookdale Community Coll., Lincroft, NJ. Center for Educational Research.
PUB DATE Nov 83
NOTE 49p.
PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *College Faculty; Community Colleges; Questionnaires; School Surveys; *Teaching Methods; Teaching Styles; Two Year Colleges

ABSTRACT

A study was conducted to investigate the teaching methods used by full-time faculty at Brookdale Community College (BCC). The study sought to collect relevant demographic data; survey the teaching methods used in an average semester and the factors influencing the selection of teaching methods; identify changes in teaching methods; and survey faculty needs and means of assisting faculty in developing new teaching methods. Study findings, based on survey responses from 77 of 150 faculty members and 29 follow-up interviews, revealed that: (1) 65% of the respondents had at least 6 years of college experience at BCC; (2) 73% of the respondents had taken a course in teaching methods; (3) 75% of the resondents indicated that at least 75% of instruction took place in the classroom; (4) the most widely used teaching methods used over a given semester were discussion, audio-visual presentations, lecture, and problem solving; (5) the two factors that most influenced the selection of teaching methods were course content/objectives and personal teaching style; (6) 22 of 29 faculty interviewed indicated that they had changed their teaching methods and all but one of the 29 felt a desire to learn other teaching methods; and (7) a majority of faculty interviewed felt that a workshop would be an appropriate means of learning new skills. Appendices include the survey instruments. (HB)

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Survey of Teaching Methods of Brookdale Community College Full-Time Teaching Faculty

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November 1983

VC 830 532

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ABSTRACT

SURVEY OF TEACHING METHODS OF BROOKDALE COMMUNITY COLLEGE

FULLTIME TEACHING FACULTY

The purpose of the study was to research the teaching methods used by fulltime faculty at Brookdale Community College. Six objectives were established as follows:

1. To collect demographic data of faculty relevant to the study.

2. To survey the teaching methods used over an average semester.

3. To survey the factors that influence the selection of the teaching methods.

4. To identify any changes of teaching methods from initial Brookdale employment.

5. To survey faculty needs in terms of teaching methods.

6. To survey "means" of assisting faculty in teaching methods.

A total of 77 faculty members responded to the questionnaire out of 150 and 29 faculty members participated in the follow-up interview. The statistical measures analysis of covariance was applied to appropriate data to see if any significant differences existed between teachers at Brookdale and other institutions.

The findings indicated that the Brookdale faculty used many of the same teaching methods as other community colleges, lectures and discussions, but used more strategies per day (3.3) than other

community colleges (1.42). The results of the interview showed that the faculty did change teaching methods and were willing to seek additional methods for inclusion into the classroom.

The recommendations and conclusions derived from the findings included:

1. Further workshops on teaching strategies with actual demonstrations of the strategy be offered on a regular basis.

2. That workshops be presented on requested strategies such as simulation games, CAI, problem solving and well-used strategies such as lecture, discussion and audio-visual.

3. That further research be conducted on the selection of teaching strategies to include the effects of scheduling, personal teaching style and content/objectives.

Conclusions of the study were that Brookdale faculty used similar strategies as their counterparts but also utilized a wider variety of strategies in a given class and over a semester period of time. In addition, it can be concluded that Brookdale instructors are constantly assessing their classroom performance and are looking for ways to improve instruction.

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SURVEY OF TEACHING METHODS OF BROOKDALE COMMUNITY COLLEGE
FULLTIME TEACHING FACULTY

I. INTRODUCTION

There are a multitude of teaching strategies that can be used in the instructional process. Experts have identified and defined over forty five distinct teaching methods. No one particular method is said to be the best but each is appropriate under certain conditions according to Hyman in Ways of Teaching.(1).

Recent research at the community college level in the use of teaching strategies has been sparce, save two studies in Florida Community College. In both of the studies a survey was undertaken to determine the method and factors affecting their selection and use by the faculty. Since the birth of the College in 1969, no research has been conducted on teaching methods of the Brookdale Community College faculty. This study was designed to assist in collecting information about teaching methods of the Brookdale fulltime teaching faculty.

Statement of the Problem

The purpose of this study was to investigate the uses of teaching methods by the Brookdale faculty. The specific objectives of the project were:

1. To collect demographic data of faculty relevant to the study.

2. To survey the teaching methods used over an average semester.

3. To survey the factors that influenced the selection of teaching methods.

4. To identify any changes of teaching methods from initial Brookdale employment.

5. To survey faculty needs in terms of teaching methods.

6. To survey "means" of assisting faculty in teaching methods.

Significance of the Problem

The average college instructor spends approximately 80-90% of his classroom time involved in the use of teaching strategies. The other 10-20% is used for role taking, giving assignments, homework, instructions, etc.

The critical factors in the use of teaching methods are what methods are being used and for what purposes. Several experts in the field have indicated that each strategy, or types of strategies, requires different forms of learning or skills from the students (2). All strategies/methods do not produce the same cognitive or affective results. Furthermore, a philosophy that supports a given set of teaching methods will also result in a general pattern of student outcomes. Guilford, Gallagher and Bloom in their studies of the cognitive domain reinforce this concept (3).

Brookdale's philosophy of education has supported the concept of mastery learning (systems approach). This concept lends itself to individualized instruction, self pacing, etc., as well as a particular emphasis on teaching methods. Over the past fourteen years, three presidents, two academic vice presidents, organizational changes, and a dramatic increase in student enrollment, Brookdale has changed so significantly as to warrant research into teaching methods. With the continual changes in technology, the need for cost effectiveness and accountability, this study was conducted to shed some light on the patterns of teaching methods used at Brookdale Community College.

Procedures

To identify the teaching methods used by the Brookdale faculty the following procedures were used:

1. A questionnaire was designed and administered to the Brookdale faculty.

2. Interviews were conducted as a follow-up to the survey for the purpose of identifying changes in teaching methods.

3. Statistical means were applied to measure significance of the data.

Fundamental Assumptions

For the purpose of this study, the terms used in the investigation will be defined as follows:

1. Brookdale Faculty - Members of the fulltime teaching faculty.

2. Teaching Methods/Strategies - Those techniques used to present knowledge to the students. (Definitions of specific methods may be found in the appendix)

Limitations of the Study

1. This study was limited to fulltime teaching faculty at Brookdale Community College.

2. The interview was limited to only Brookdale faculty that indicated a willingness to participate in the interview.

3. The study was limited to survey teaching methods and not technical skills of teaching.

4. The study was limited only to those teaching strategies as outlined in the survey instrument.

II. REVIEW OF RELATED LITERATURE

The review of related literature in this part of the study is separated into two sections. The first dealing specifically with methods used by community college faculty and the second with the philosophy of Brookdale Community College as it relates to teaching methods.

Survey of Teaching Methods at Community Colleges

The research conducted by Susan Braunstein at Florida Institute of Technology (1982) of The Relationship Between the Various Characteristics of Selected College Teachers and the Teaching Methods They Employ in the Classroom, indicated that the lecture method was the dominant method used in the classroom. Fifty three percent of the classes used the lecture method. Twenty three percent used the laboratory and thirteen percent incorporated the demonstration. "Discussion was employed only four percent of the time with student reports, individualized pacing and lecture-discussion were each employed in only two percent of the classes observed. Five methods were never observed in the course of the study: role playing, C.A.I., simulations, case study and independent study" (4).

The average number of strategies employed in the classroom was 1.42. No significant relationship was established between instructors of vocational and academic subjects in the use or frequency of teaching methods.

Dennis Toback in his dissertation Teaching Methods, Strategies and Techniques in Use in Florida Community Colleges, which involved 1543 respondents, also cited high use of the lecture method, He reports that "community college teachers in Florida use the lecture/audio visual (65%) as their primary modes of instruction. Within this context, two other methods, discussion (26%) and demonstration (21%), had some usage. Other methods such as laboratory (14%), independent study (13%), small group/ seminar (13%), programmed instruction (9%), case studies (6%), games/ simulation (4%), role playing (4%) and computer assisted instruction (2%) had minimal usage" (5).

Brookdale's Philosophy as it Relates to Teaching Methods

Brookdale's philosophy, according to the original Master Plan (6) had a definite impact on teaching methods and styles, not only from theoretical perspective, but also via the design of the learning environment.

Institutional Objective III, which is, "Provide an Educational Environment that Facilitates Human Development", identified the following parameters in design of the learning environment.

1. Development of multi-laboratory space capable of serving related programs.

2. The close connection and integration of formal learning laboratory with informal, socializing areas.

3. The development and implementation of programs and learning strategies involving highly technical media support and computer hardware - therefore, the need to plan for physical inclusion of television and dial access cable.

4. Create as many exterior classrooms as possible, establish

courtyards and patios and use them as environments for learning.

5. Large lecture spaces to be provided for both educational and community programs.

Institutional Objective IV, which states, "Provide an Educational Program That Accommodates Individual Differences in Learning Styles, Learning Rates, and Prior Knowledge", identified the following parameters for implementation.

4.2. COURSES ARE DESIGNED TO ACCOMMODATE INDIVIDUAL LEARING STYLES, RATES, AND PRIOR KNOWLEDGE

Planning Parameters

That the formal curriculum will be modified as rapidly as possible to allow for individual prescrtiption of educational units which more closely fit the individual student's needs than do the traditional programs.

That the College will develop, in response to the individual differences of students, various educational options related to differences in learning styles. Thus the College program will offer individual as well as group or team experiences and traditional as well as innovative methods of instruction.

That the educational program will be learner--and learning--centered rather than teacher--and teaching--centered, as is common. Thus, traditional scheduling will be modified to meet user's needs rather than the needs of the institution or its staff.

That in the development of its formal curricula the College will utilize the systems approach, with particular attention to the individualized program devised for the individual student as a result of careful diagnosis of his needs.

That the theme of Brookdale Community College programming will be relevance is the problems that citizens must face. Therefore, where possible, student learning experiences will be "real world" and problems solving oriented.

Educational Model

1. A school should be learner and learner centered.
   a. Student should be able to formulate some of his own objectives.
   b. Student should decide on his level of achievement.
   c. Units should not be ranked as to difficulty, prerequisites or importance.

2. Should not be any time limits to restrict the number of learning units in an area, provided that the student elects to remain and to avail himself of such learning opportunities.

3. A systems approach to instruction to Educational problems utilized:

   Decide what specific behavior the students must achieve

   Plan instruction (with alternative suggestions) specifically

   Select an instructional plan believed most effective to achieve performance or behavioral objectives

   Measure carefully to find out how much was achieved

   Analyze the results in order to determine the causes of failure when it is found

   Select different instructional plan or revise original plan to secure more affective results

   Evaluate total progress against internal system objectives

4. Individualized strategies recommended to assist B.C.C. realizing its educational commitment.

   a. Individually Paced Instruction
   b. Audi-Tutorial Instruction
   c. Programmed Instruction
   d. Peer-Tutorial Instruction
   e. Computer-Managed Instruction

5. Group strategies recommended to assist B.C.C. in realizing its educational commitment.

   a. Telelecture Instruction
   b. Team Learning
   c. Interdisciplinary Team Teaching (Computer Selected Team)

4.2 COURSES ARE DESIGNED TO ACCOMODATE INDIVIDUAL LEARNING STYLES, RATES, AND PRIOR KNOWLEDGE

Educational Model - B.C.C. uses the systems approach to instruction. The following aspects have been implemented:

1. All courses have learning programs that include:
   a. Objectives
   b. Learning experiences
   c. Methods of evaluation

2. Pre tests - Post Tests - small percentage of L.P. have pre and tests.

3. Modes of Learning - Five modes have been identified by the institution and "most teams use two or more forms".

   a. Large Group
   b. Small Group
   c. Laboratory
   d. Cooperative Education
   e. Independent Study

4. Special Projects: Courses designated with a 295 code allow students to develop with faculty members "special projects" which cannot be undertaken because of the nature of the objectives in already existing courses.

5. Continuous Registration: Courses that are "highly individualized" are available for continuous registration and progress. Courses may be entered at three-week intervals. Approximately 144 of B.C.C. courses are on continuous registration, progress.

6. Systematic Instructional Development Handbook: has been designed to assist faculty in the development of learning programs.

7. In most courses student is given an opportunity to develop some of his own objectives.

8. In all courses students decide at what level achievement they wish to pursue.

9. No ranking exists of units within a course - however, some courses do have pre-requisites.

10. Fall of 75, designated courses will be available in one credit modules.

The original interpretation of the philosophy of the college under President Harlacher was the emphasis upon individualized learning, systems approach, and non-traditional methods in the classroom. The systems approach took on many different interpretations and the college faculty went in many different directions during this period of time. Toward the end of the Harlacher years a more solidified view of "systems" was given with the development of the Institutional Development Laboratory under the leadership of Albert Solomon. A strong effort was made to insure that each course had an "appropriate learning program" and a college wide testing service was begun.

Under Donald Smith's presidency that became more "business like" in its approach to the philosophy and several courses in each institution were fully individualized for student use. Learning programs were reviewed on an annual basis and more encouragement in the use of films and video tape were promoted. Greater structure was brought into the classroom organization and less flexible scheduling was allowed.

In summary, Brookdale's philosophy of teaching/learning still maintains and supports the concept of mastery learning and the use of systems approach.

III. DESIGN OF THE STUDY

This study was an internal research project conducted within the institution of Brookdale Community College. Although the study was in-house, it was similar to other studies conducted at community colleges in Florida as cited in the review of the literature.

The Setting

Brookdale Community College, the County College of Monmouth, located in Lincroft, New Jersey, is a two year comprehensive institution supported by the New Jersey Board of Higher Education. The college was founded in 1967 and enrolled its first class on the Lincroft campus in the fall of 1969.

The college has 183 full time faculty and 11,702 students (Fall 82). Brookdale is organized into three institutes of learning offering the A.A., A.S. and A.A.S. Degrees along with various certificate programs. The institutes of learning include: Natural Applied Sciences, Institute of Social Sciences and Business and the Institute of Applied Humanities.

Description of Instruments and Their Uses in This Study

The survey instrument was originally designed by the researcher as part of an independent project in 1978. The instrument was modified to incorporate elements of the Toback Study so that comparisons of other community college faculty could be made.

The questionnaire used in the follow-up interview was independently designed for this study. In both instruments, the Office of Research at Brookdale Community College assisted in the refinement of the tools to acquire the pertinent data.

Procedures Used

The Teaching Strategy Survey was sent to all full time teaching faculty (150) at Brookdale during the first week of March, 1983. The expected return date of the questionnaire was March 23, 1983. A series of follow-up memos were sent to the faculty as a gentle reminder of the study and their participation.

A total of 77 faculty members responded to the survey with 60 indicating a willingness to participate in a short interview concerning their teaching methods. Twenty-nine faculty members were subsequently interviewed during the Spring 83 semester at Brookdale Community College. The interviews lasted an average of fifteen minutes and were conducted for the most part at the participating faculty members' desks.

IV. PRESENTATION AND ANALYSIS OF DATA

The study was conducted for the purpose of investigating the uses of teaching methods used by the Brookdale Faculty. The results of the survey and interview are broken into three distinct parts: Demographic Date, Teaching Methods and Factors Influencing Selection, Follow-Up Survey.

Part I - Demographic Data

Table 1. Question One: Years of Community College Teaching Experience

Years of Experience	# of Teachers
1	1
2	3
3	2
4	4
5	2
6	3
7	5
8	3
9	3
10	4
11	6
12	13
13	13
14	8
15	5
16	2

The data indicates that of the respondents 12 had less than 5 years of community college teaching experience while 65 percent had 6 years or more with 34 faculty having between 12-14 years of community college teaching experience.

Table 2. Question Two: Years of Other Teaching Experience

Years of Experience	# of Teachers
1	5
2	4
3	8
4	7
5	8
6	4
7	2
8	5
9	1
10	7
11	1
12	3
13	1
14	1
15	1
16	1
17	11
20	1
22	1

The results of the first two questions show the average total teaching experience of the faculty as 8.9 years.

Question Three: Specify your highest degree:

Degree	# of Teachers
Bachelor	4
Masters	24
Masters plus	30
Doctorate	19

The results demonstrate that 25% have a doctorate degree with 60% having either a doctorate or masters plus.

Question Four: Have you had a course in teaching methodology?

YES 56 NO 21

The results indicate that 73 percent have had one or more courses in how to teach.

Question Five: Have you attended a workshop related to instructional approaches?

YES 65 NO 11

Eighty five percent of the respondents indicate participation in workshop(s) related to instructional approaches.

Question Six: Would you consent to a short interview concerning your teaching methods?

YES 60 NO 13

Question Seven: "Subject Matter" The question asked the participants to select their primary teaching area.

7. Subject Matter: Your primary teaching area (please check only one)

1 Reading	2 Recreation/Fitness	2 Automotive
8 Writing	1 Criminal Justice	1 Drafting & Design
3 Literature	2 Political Science	0 Electronics
1 Language	2 Psychology	7 Mathematics
2 Music/Dance	2 Soc/Anthropology	2 Computer Science
5 Speech/Theatre	0 Accounting	1 Biology
0 Art	3 Econ./Finances	1 Chemistry
0 Com. Design	1 Marketing	2 Natural Sciences
4 Com. Media	2 Food Service Mgt.	1 Medical Laboratory
0 Education	0 Legal Studies	5 Nursing
6 History	1 Management	1 Respiratory Therapy
3 Philosophy	1 Office Systems	3 Other (specify)___

Question Eight:

Environment: Instruction takes place what percentage of time in:

(Total percentage should not exceed 100%.)

A. Classroom	0	9	50	B. Laboratory	37	0	7	50
	1	10	23	75		3	10	6	75
	8	25	32	100		18	25		100

C. Other (i.e., Observation, Field Trips)	51	0	2	50
	9	10		75
	7	25		100

Seventy-five percent of the faculty indicated at least seventh-five percent of the instruction took place in the classroom while 48% indicated some laboratory work associated as part of the course structure.

Question Nine:

Class Size:

A. Number of students per average class

____ 10 or less	54 21-30	2 41-100	____ 200 and over
3 11-20	16 31-40	____ 101-200	

B. Number of students per average laboratory

16 10 or less	6 21-30	1 41-100	____ 200 and over
9 11-20	4 31-40	____ 101-200	

A high majority of faculty (72%) indicated that their average class size range was between 21-30 students.

For those with laboratory sections 16 or 44% faculty indicated 10 or less average # of students per lab sections. (This data is misleading in that most lab sections are open and students are not required to sign up for a particular lab.)

Question Ten:

Time: Identify the typical time blocks in which your classes are taught (Check one only)

4 1 and 2 hours	50 3 hours	1 4 hours
____ 1½ and 1½ hours	____ 2 or 3 hours plus lab	3 other

Sixty six percent of the faculty stated that the typical time block for classes was a 3 hour period of time.

Part II - Teaching Methods & Factors Influencing Selection

Table 3. Methods One - Seven. Question Eleven: Identify the teaching methods and their usage over an average semester and the factors that influence their selection.

	Usage					Factors Influencing Selection					
	Please check one					Please check all that apply					
TEACHING METHOD	Every Class Session	Every Other Session	Three-Six Times a Term	Once or Twice a Term	% of Faculty using method at least once a semester	Training	Class Size	Classroom Environment	Course Content Objectives	Students' Abilities	Personal Teaching Style
Audio-Tutorial	4	3	7	11	33%	7	7	8	16	12	9
Audio-Visual Aids	19	10	22	6	90%	14	17	21	38	17	30
Case Study	5	6	6	9	35%	7	4	8	12	11	15
Computer-Assisted Instr.	0	0	0	6	8%	3	2	3	4	1	2
Debate	2	2	2	12	23%	1	1	3	11	5	5
Discussions	5	10	3	1	93%	21	24	28	38	22	47
Demonstrations	21	18	7	7	63%	14	14	12	31	14	24

The data indicates that 93% and 90% of the faculty utilize the discussion and audio visual aids respectively at least once per semester.

Sixty-two percent of the faculty stated their use of the demonstration method.

The factor that influenced the faculty in the selection of all seven teaching methods were the course objectives and personal teaching style.

Part II. (cont'd)

Table 4. Methods Eight - Fourteen

	Usage					Factors Influencing Selection					
	Please check one					Please check all that apply					
TEACHING METHOD	Every Class Session	Every Other Session	Three-Six Times a Term	Once or Twice a Term	% of Faculty using method at least once a semester	Training	Class Size	Classroom Environment	Course Content Objectives	Students' Abilities	Personal Teaching Style
Field Trips	3	1	8	23	47%	4	5	7	23	8	10
Guest Speaker	2	0	8	28	50%	3	4	4	19	4	12
Laboratory	14	16	6	6	49%	13	12	11	3	13	13
Lecture	4	9	3	1	89%	22	34	28	44	22	42
Observation	8	2	5	1	34%	6	3	10	17	9	8
Panel	1	0	1	11	17%	0	2	4	6	2	8
Problem Solving	26	6	11	8	68%	18	8	12	38	20	34

Of the above teaching methods the strategies of lecture (89%), problem solving (68%) scored the highest percentage of usage by the faculty. The methods of guest speaker (50%), laboratory (49%) and field trips (47%) also indicated a represented usage by the faculty.

The factors that influenced the selection of those teaching methods once again were course content/objectives and personal teaching style.

Part II. (cont'd)

Table 5. Methods Fifteen - Twenty-One

	Usage					Factors Influencing Selection					
	Please check one					Please check all that apply					
TEACHING METHOD	Every Class Session	Every Other Session	Three-Six Times a Term	Once or Twice a Term	% of Faculty using method at least once a semester	Training	Class Size	Classroom Environment	Course Content Objectives	Students' Abilities	Personal Teaching Style
Programmed Instruction	6	1	8	8	25%	5	4	5	11	12	10
Project	7	1	7	2[illegible]	50%	7	1	4	24	18	16
Recitations	14	6	4	6	40%	6	7	12	18	17	18
Reporting	7	2	4	15	35%	4	5	4	18	9	10
Role Playing	6	1	12	11	40%	9	7	5	14	10	21
Simulation Game	7	0	4	15	34%	5	2	3	11	7	11
Tutoring	4	5	11	11	43%	8	8	6	11	16	18

The methods of Project (50%) and Tutoring (43%) were influenced by the factors of course content and personal teaching style.

Table 6. Frequency Usage of Teaching Methods

Teaching Method	Percentage Usage per Semester	Rank	#of Faculty Usage every Class Session
Discussion	93	1	55
Audio-Visual Aids	90	5	19
Lecture	89	2	54
Problem Solving	68	3	26
Demonstration	62	4	21
Field Trips	50		3
Project	50		7
Guest Speaker	50		2
Laboratory	49	6	14
Tutoring	43		5
Recitations	40	6	14
Role Playing	40		6
Case Study	35		5
Reporting	35		7
Simulation Game	34		7
Observation	34		8
Audio-Tutorial	33		4
Programmed Instruction	25		6
Debate	23		2
Panel	17		1
Computer-Assisted Instr.	8		0

The data indicates that the teaching methods most used over a given semester in order of percentage of use are the (93) Discussion,

(90) Audio-Visual Aids, (89) Lecture. At a significantly lower percentage are grouped the problem solving method (68%) and demonstration (62%). Clustered about the 50% range were the methods of Field Trips, Guest Speaker, Project and Laboratory.

The method that least used over a semester was computer assisted instruction at eight percent.

In terms of daily or every class usage the data was quite similar with the exception of A. V. rating fifth instead of second as in overall usage. By far the most widely used teaching methods used on a class-by-class basis were the discussion (55) and the lecture (54). Significantly below that were the problem solving (26), demonstration (21) and audio-visual (19).

On the bottom of the frequency list was computer assisted instruction with no faculty using it as a daily-session basis. It should be noted that certain strategies lend themselves to usage on a daily basis, i.e. lecture versus strategies that are organizationally more adaptive to less frequent usage, i.e. field trips, debates, panels.

Factors Influencing Selection

With few exceptions, the faculty was influenced significantly in their selection of teaching methods by first, the course content/objectives and second, personal teaching style (Refer to appendix: Criteria for Selection of Teaching Strategies). Certainly other factors as indicated by the data had an impact upon the selection but numerically speaking the above two factors seemingly play a major part in the selection process.

Table 7. Teaching Method Usage by Institute

Method	N.A.S. (24)			I.S.S.B. (29)			A.H. (24)		
	Every	Every Other	Total	Every	Every Other	Total	Every	Every Other	Total
Lecture	22	2	24	24	2	24	11	5	19
Discussion	15	2	21	23	4	28	18	4	22
Problem Solving	14	1	17	3	3	19	9	3	17
Demonstration	9	5	18	9	3	16	3	4	12
Audio Visual	7	4	20	9	5	26	5	3	15
Laboratory	5	8	14	4	2	11	3	1	10
Recitation	5	1	10	5	2	10	5	4	11

In NAS the lecture (22-24), discussion (15-24), and problem solving (14-24) were the most widely used methods on a daily basis. The Institute of ISSB utilized the lecture (24-29) and discussion (23-29) most frequently on a daily basis. The AH Institute reflected a slightly different pattern with discussion (18-24), lecture (11-24), and problem solving (9-24) being utilized on a daily basis.

Table 8. Teaching Method Usage by Faculty

# of Methods Every Class/Session	N.A.S.	I.S.S.B.	A.H.
1	2	2	6
2	4	10	5
3	4	6	3
4	6	5	6
5	3	3	2
6	2	1	1
8	2		
10		10	
12			1

Table 9. Average Number of Methods Used by Faculty per Institute and College

Frequency	N.A.S.	I.S.S.B.	A.H.	College
Every Class/Session	3.7	3.1	3.2	3.3
Every Other Session	5.1	4.	4.5	4.5
Total per Semester	7.6	10.5	8.4	9.4

The data indicates that the faculty college wide uses on the average 3.3 teaching methods on a daily basis and 4.5 methods at least every other session. There is no significant difference between the faculty of each institute and the number of methods utilized.

The average number of strategies per semester used by the faculty college-wide was 9.4 with I.S.S.B. averaging 10.5 per faculty member, A.H. 8.4, and N.A.S., 7.6 respectively.

Part III - Follow-Up Survey

The initial survey asked if the participants would be willing to be interviewed concerning their teaching methods. Of the sixty positive responses, 29 interviews were conducted. Fifteen interviews were conducted with faculty in Institute of Social Sciences and Business, eight in Institute of Natural and Applied Sciences, and six in Applied Humanities.

Question One: How long have you taught at B.C.C.?

Question Two: Have your teaching methods changed since you have been at B.C.C.?

Question Three: Has there been any change in strategies new/different or in the emphasis of teaching methods?

Table 10. Changes in Teaching Methods

Years at B.C.C.	# of Faculty	Change in Teaching Method Yes	No
14	5	4	1
13	11	9	2
12	6	4	2
9	1	1	
8	2	1	
6	3	3	
3	1		1
TOTALS ---	29	22	7

Out of twenty-two faculty with 12-14 years teaching experience, seventeen stated that their teaching methods had changed and five indicated no change. A total of twenty-two faculty reflected changes in teaching methods while seven had no change.

Question Four: What changes took place?

Question Five: When did the changes start?

Question Six: What were the reasons, factors, motivating forces for the change(s)?

Table 11. Changes in Teaching Methods/Statement of Reasons

Teaching Method	More	Less	Reasons for Change	
Learning Packages	--	3	Graduate Work/Workshops	3
Lecture	7	6	Financial	2
Media	7	4	Availability of Media	5
Groups & Projects	6	1	Self Appraisal	14
Drill	--	2	Student Feedback	11
Discussion	4	3	Philosophy of College	3
Role Playing	4	1	Scheduling	3
Other	7	2	Other	3

In summary of the changes that were given during the interview process, there seems to be no particular trend or movement toward a teaching strategy(s). Thirteen faculty indicated change in the lecture, seven for more lecture and six for less. Seven have utilized more media, while six have used less media in the classroom. Six faculty increased their usage of groups and projects and only one stated a decrease in the method.

The reasons given for the changes were more consistent. Either personal assessment (14) or student feedback (11) were indicated as forces for change.

Question Seven: Do you feel comfortable with your present methods?

All respondents stated that they were comfortable with the methods that they are presently using.

Question Eight: What skills would you like assistance with? What teaching methods might be of interest or applicable in your classroom? (The list of teaching methods was then shown to the interviewee)

Table 12. Frequency of Response for Assistance in Teaching Method

Teaching Method	
Computer Assisted Instruction	15
Simulation Games	9
Problem Solving	5
Role Playing	3
Tutorial, A.V. Aids, Case Study	2
Discussions, Field Trips, Guest Speaker	2
Programmed Instruction	2
Debate, Demonstrations	1
Lecture, Observations, Panel	1
Recitations, Tutoring	1
Laboratory, Project	0
Reporting	0

The data indicates that over 50% of the interviewees (15) felt a need, desire, willingness to explore C.A.I. as a possible teaching method. Nine faculty stated a similar response for simulation games. All but one of the 29 faculty interviewed expressed a "need to Learn" other teaching methods.

Question Nine: What type of environment would you like this to take place in? What would be the best learning situations to learn these "skills"?

The faculty response to the question was as follows:

--Fifteen faculty indicated that workshops and/or a "one to one" basis would be most appropriate to learn the new skills.

--Four faculty indicated a formal classroom environment would best serve their purposes of learning.

--One faculty stated a need to read material prior to any assistance with methods.

--Twenty-one faculty indicated a willingness to be observed in the classroom after assistance as a follow-up measure.

--Twenty faculty stated they would want to observe the "expert" in the method demonstration in the actual classroom situation, preferably in the same disciplines.

--Four faculty felt the use of self video taping would be of assistance in learning a new method.

V. SUMMARY, ANALYSIS OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

Summary

The study was created out of a personal interest of the researcher in the use of teaching methods. The purpose of the study was to investigate the uses of teaching methods by the Brookdale Faculty. Six objectives were established for the project:

1. Collect demographic data of faculty relevant to the study.
2. Survey teaching methods used over an average semester.
3. Survey the factors that influenced the selection of teaching methods.
4. Identify any changes of teaching methods from initial Brookdale employment.
5. Survey faculty needs in terms of teaching methods.
6. Survey means of assisting faculty in teaching methods.

The review of the literature in Chapter II surveyed the uses of teaching methods in community colleges and Brookdale's philosophy as it applies to teaching strategies. The review indicated that the lecture method was the dominant method utilized and no significant difference was attributed to instructors of academic and vocational subjects.

In regard to Brookdale's philosophy, a brief overview of its "platform" was presented highlighting appropriate aspects as it relates to teaching methods. Brookdale has and continues to emphasize the systems approach with encouragement in the use of alternate teaching methods.

Chapter III outlined the design of the study showing that the questionnaire was sent to all full-time teaching faculty (150) with a response of seventh-seven participants. Sixty of the participants indicated a willingness to be interviewed.

Analysis of Findings

Objective One, Part I: To collect demographic data of faculty relevant to the study.

..... That 65% of the faculty had at least six years of community college experience at B.C.C. and thirty-four of the faculty have between 12-14 years of community college experience, 8.9 years.

..... That seventh-three out of seventy-seven members have a masters degree or higher.

..... That fifty-six faculty members have had a course in teaching and methods and sixty-five have attended a workshop related to instructional approaches.

Conclusions: Collectively that data would indicate that Brookdale's faculty is experienced in teaching and has some formal training in t4aching methods.

Objective One, Part II:

..... That 75% of the faculty indicated at least 75% of the instruction took place in the classroom, 48% indicated some laboratory work associated as part of the course.

..... That 72% indicated that their average class size range was between 21-30 students.

.....That 66% of the faculty indicated the typical time block for classes was a three hour period of time.

Conclusions: A majority of the faculty utilize the classroom as the primary area for instruction. The class size,21-30 students, seems to be within reason, but no specific conclusions can be reached until further analysis is done between class size and subject matter. The three hour block of time seemingly allows the faculty to utilize more teaching methods (3.3) per session than other community colleges (1.42) per session as reported in Chapter II.

Objective Two: To survey the teaching methods used over an average semester.

..... The most widely used teaching methods over a given semester, in order of percentage use, were the Discussion (93), Audio Visual (90), Lecture (80), Problem Solving (68), Demonstration (62), Field Trips, Project, Laboratory (50).

..... The most widely used methods on a daily basis were the Discussion (55), Lecture (54), Problem Solving (26), Demonstration (21), and Audio Visual (19).

..... Computer assisted instruction was the least used, either on a semester or a daily basis.

..... The three methods most frequently used on a daily basis were: N.A.S. - Lecture (91%), Discussions (63%), Problem Solving (59%); I.S.S.B. - Lecture (83%), Discussions (80%), Demonstration & Problem Solving (31%); A.H. - Discussion (75%), Lecture (46%), Problem Solving (38%).

..... The average number of methods used by the faculty on a daily basis were: N.A.S. 3.7, I.S.S.B. 3.1. A.H. 3.2 and college-wide 3.3.

Conclusions: The faculty utilize the lecture and discussion on a consistent basis across the college as the primary methods of instruction. There are some possible differences in emphasis of the lecture in A.H. versus the other two institutes.

The faculty, both on a daily and semester basis, utilize significantly more methods than do their counterparts as indicated in Chapter II.

Objective Three: To survey the factors that influenced the selection of teaching methods

..... The two factors that influenced the selection numerically were the course content/objectives and personal teaching style.

Conclusions: No definitive conclusion can be drawn from the data in that any one factor may override all other factors in the selection process.

Objective Four: To identify any changes of teaching methods from initial Brookdale employment.

..... Twenty-two faculty out of twenty-nine indicated changes in teaching methods. Of those, seventeen had between 12-14 years of teaching experience at B.C.C.

..... No particular pattern of changes in methods could be discovered. However, several indicated changes surrounding the lecture.

..... The reasons given for the changes were consistently either personal assessment or student feedback.

..... All respondents felt comfortable with their present methods.

Conclusions: The faculty are constantly reassessing their teaching methods and are most influenced in changing by the desire to perform better in the classroom as indicated by personal introspection and student evaluations.

Objective Five: To survey faculty needs in terms of teaching methods.

..... All but one out of twenty-nine felt a need or desire to learn other teaching methods. Fifteen indicated a desire to explore C.A.I. and nine sought to explore simulation games.

Conclusions: The faculty are willing to explore different teaching methods.

Objective Six: To survey "means" of assisting faculty in teaching methods.

..... Fifteen faculty indicated that a workshop and/or a "one to one" basis would be appropriate means to learn new skills.

..... Twenty-one faculty indicated a willingness to be observed in the classroom after assistance as a follow-up resource.

Twenty faculty expressed the desire to observe the expert in utilizing the method, preferably in the same discipline.

Conclusions: There is a need of the faculty when exploring new methods to meet with an expert on a "one to one" basis and/or a small workshop to see the methods in use.

Recommendations and Conclusions

The following recommendations are suggested based upon the findings.

1. Further workshops on teaching strategies with actual demonstrations of the strategy be offered on a regular basis for the college.

2. Teachers with specific presentation strengths, i.e. lecture, demonstration, discussion, be known to the faculty and available on a mentor/consultation basis.

3. Workshops be presented on teaching strategies to include CAI, simulation games and problem solving.

4. Workshops should be presented on the most frequently used teaching strategies, lecture, discussion, demonstrations and audio visual.

5. That teaching stations/rooms have blackboards and lecturns to support the lecture and discussion methods.

6. That further research be conducted on how the scheduling of instruction affects the selection of teaching strategies.

7. That further research be conducted as to how personal teaching styles and content/objectives affect the selection of teaching strategies.

The following conclusions can be derived from the findings.

1. That Brookdale faculty rely on the lecture and discussion as the primary means of instruction.

2. That Brookdale faculty utilize on a daily and semester basis a wider variety of teaching strategies than do their counterparts.

3. That Brookdale faculty are constantly assessing their teaching performance and are willing to search for means of improvement.

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APPENDIX A

34-36

TO: Brookdale Faculty

FROM: Frank Paoni, Ext. 543-544

SUBJECT: Survey, Teaching Strategies

DATE: March 18, 1983

I am requesting your assistance in a research project covering teaching strategies. This survey is the first project of Brookdale's new Center for Educational Research. The purpose of the survey is to ascertain what methods are presently being used by the Brookdale faculty.

The survey has been field tested and I believe it will take approximately 10-15 minutes to complete and all the data will be held in strictest confidence. If you have further questions please feel free to call upon me. Please send the completed survey by March 25, 1983 to Frank Paoni, Education Dept.

TEACHING STRATEGY SURVEY

The questionnaire should take you about fifteen minutes to complete. Please provide the following data:

1. Years of Community College teaching experience _____

2. Years of other teaching experience _____

3. Specify your highest degree
   Bachelor _____
   Masters _____
   Masters plus _____
   Doctorate _____

4. Have you had a course in teaching methodology? YES _____ NO _____

5. Have you attended a workshop related to instructional approaches?
   YES _____ NO _____

6. Would you consent to a short interview concerning your teaching methods? YES _____ NO _____

   If yes, please sign name _____

Now turn to the next page and begin.

Thank you!

TEACHING STRATEGY SURVEY

DIRECTIONS: Answer all questions as accurately as possible.

7. Subject Matter: Your primary teaching area (please check only one)

____Reading	____Recreation/Fitness	____Automotive
____Writing	____Criminal Justice	____Drafting & Design
____Literature	____Political Science	____Electronics
____Language	____Psychology	____Mathematics
____Music/Dance	____Soc./Anthropology	____Computer Science
____Speech/Theatre	____Accounting	____Biology
____Art	____Econ./Finances	____Chemistry
____Com. Design	____Marketing	____Natural Sciences
____Com. Media	____Food Service Mgt.	____Medical Laboratory
____Education	____Legal Studies	____Nursing
____History	____Management	____Respiratory Therapy
____Philosophy	____Office Systems	____Other (specify)_____

8. Environment: Instruction takes place what percentage of time in: (Total percentage should not exceed 100%.)

A. Classroom	____0	____50	B. Laboratory	____0	____50
	____10	____75		____10	____75
	____25	____100		____25	____100

C. Other (i.e., Observation, Field Trips) ____0 ____50
____10 ____75
____25 ____100

9. Class Size:

A. Number of students per average class

____10 or less	____21-30	____41-100	____200 and over
____11-20	____31-40	____101-200	

B. Number of students per average laboratory

____10 or less	____21-30	____41-100	____200 and over
____11-20	____31-40	____101-200	

10. Time: Identify the typical time blocks in which your classes are taught (check one only)

____1 and 2 hours	____3 hours	____4 hours
____1½ and 1½ hours	____2 or 3 hours plus lab	____other

Now turn to the next page and read the definitions before starting the next part of the survey.

TEACHING METHODS DEFINITIONS

Audio-Tutorial:	A combination of print, non-print, audio devices whereby a student is assisted in the learning process; as in individualized instructors.
Audio-Visual Aids:	Techniques involving the use of sight and sound equipment as an adjunct to the institutional process, i.e., charts and maps in lecture.
Case Study:	The use of structured reports with specific formats outlining a history and background of the activity to stimulate discussions, develop reasoning, evaluation concerning an issue.
Computer-Assisted Instruction:	Programmed exercises utilizing an automatically keyed response system giving instant feedback.
Debate:	An advocacy panel with a specific format to discuss an issue.
Discussions:	A general interchange and sharing of information among members of a group for purposes of learning.
Demonstration:	An explanation by example.
Field Trips:	Students are brought on site to observe, partake in learning activity no able to be conducted in the classroom.
Guest Speaker:	An authority other than the teacher who speaks before the class.
Laboratory:	Provides students with supervised activities and opportunities for trial and error and success behaviors in a controlled environment.
Lecture:	A discourse highlighting the salient points of a specific topic or unit of instruction.
Observation:	Students are directed to observe an activity for specific purposes; generally in conjunction with field trip.
Panel:	A group of persons (3-6) directed by a moderator, who address a concern or problem, limited audience participation.
Problem Solving:	Students are presented a problem/question and asked to formulate a solution, usually involving scientific method, brainstorming, etc.

Programmed Instruction:	Linearly related, highly organized learning exercises that employ a series of branched responses and/or statements designed to allow the learner to progress through subject material self-paced.
Project:	Students explore directed or self-selected task that relate to course objectives. Work is done either in small groups or individually over a period of time.
Recitations:	A question and answer session whereby students respond to questions based upon previous lessons.
Reporting:	Student orally (usually accompanied by formal paper) discourses on topic that he has researched.
Role Playing:	Employs the learners as part of an exercise designed to stimulate insight, encourage understanding of viewpoints and feelings of others by dramatizing the various aspects of a problem.
Simulation Games:	Enactment of a real-life situation problem placed in a game context i.e.,Stock Market, Ghetto.
Tutoring:	A one on one process of either teacher, peer or learning assistant assisting a student on specific objectives.

EXPLORATION OF FACTORS INFLUENCING SELECTION

Training:	Have had formal instruction in the method such as education courses, workshops, conferences.
Class size:	Does the number of students limit the type of methods used?
Classroom environment:	Does the classroom limit the type of teaching method, i.e., "forums" - can't utilize discussion method.
Course content/objectives:	Specific objectives or types of courses influence selections of methods, i.e, math - use of demonstration; literature - use of discussion and lecture.
Students' abilities:	Student understands role within method; is comfortable with process.
Personal teaching style:	Instructor uses method because it fits strengths or "personality"; is comfortable with role.

TEACHING METHODS

Identify the teaching methods and their usage over an average semester and the factors that influence their selection.

	Usage				Factors Influencing Selection					
	Please check one				Please check all that apply					
TEACHING METHOD	Every Class Session	Every Other Session	Three-Six Times a Term	Once or Twice a Term	Training	Class Size	Classroom Environment	Course Content/ Objectives	Students' Abilities	Personal Teaching Style
Audio-Tutorial										
Audio-Visual Aids										
Case Study										
Computer-Assisted Instr.										
Debate										
Discussions										
Demonstrations										
Field Trips										
Guest Speaker										
Laboratory										
Lecture										
Observation										
Panel										
Problem Solving										
Programmed Instruction										
Project										
Recitations										
Reporting										
Role Playing										
Simulation Game										
Tutoring										

APPENDIX B

FOLLOW-UP SURVEY: TEACHING STRATEGIES

42/43

NAME_____ DATE_____ TEAM_____

How long have you taught at B.C.C._____?

Have your teaching methods changed since you have been at B.C.C._____?

Yes, what are the reasons for the change?
(Training, students, subject, college philosophy, administration, evaluations,...)

No, reasons for not changing?

When did the change start?

What was the motivating factor(s)?

Do you feel comfortable with your present methods?

What skills would you like assistance with?

What type of environment would you like this to take place in?

or

Under what conditions, situations would you seek additional training, etc.?

APPENDIX C

CHANGES IN TEACHING METHODS/
STATEMENT OF REASONS

Changes in Teaching Methods	When Started	Reasons for Change
use of less media	3 years ago	less money & equipment problems
less formal drill and more informal drill, more use of simulations and role playing	2 years ago	recognition by comes from within, not external - attendance at graduate school and conferences
less lecture, discussion, media more group work and projects	1 year ago	physical environment (more room available) curriculum and philosophy of team
lecture used more repetition and example	4-5 years ago	need for better student performance, feedback from student test, etc.
less A.V. and learning packages more lectures and board work	14 years ago	poor completion roles of students, institutional pressures, peer influence
more field trips, role playing debates - decrease in A.V. guest speakers	3-5 years ago	needed more student involvement, personal assessment, institutional pressures, budget pressure, no monies
more group work, student reports field work, observation	10 years ago	meet student needs, smaller classes, 3 year block to long, team teaching
more informal lectures vs. formal better films less role playing	2 years ago	self assessment, need to get closer to students availability of films less team teaching
more media, field trips, debates	10 years ago	availability, student likes, personal assessment
less individual instruction, by packages, more lectures	-----	personal standards of excellence, strive for higher standards

Changes in Teaching Method	When Started	Reasons for Change
less lecture more case studies, simulations discussions, interviews	constant	personal assessment/student feedback
less formal lectures to informal more use of questions and films	4-5 years ago	personal assessment, create a feeling of suspense, more availability
less lecture more group process, discussion more media	7 years ago	personal assessment, time factors, adaptability to students abilities, schedule need to vary
less lectures more group projects, guest speakers, large group discussions	gradual	change in student population, graduate courses, student evaluation, personal assessment
less lecture, drill more group interactions, projects	constant	personal assessment, student reaction
less lecture, more A.V., case study, discussion, demonstration, role playing, tutoring	constant	personal assessment, didn't make students think, workshop and observations
less learning packages, case studies more visuals	5 years ago	self assessment, lack of student response, other faculty usage
less discussion, more role playing, problem solving, projects, lectures	-----	need for more structure, personal assessment, course work, media and literature
more A. V.	constant	availability of media
more A. V., lectures, projects less discussions, field trips, tutoring	6 years ago	student changes, need for structure, personal assessment

MEMORANDUM

TO: BCC Faculty

FROM: Frank Paoni

SUBJECT: Survey, Teaching Strategies: HELP!

DATE: March 28, 1983

Recently I asked your assistance in completing a survey on teaching strategies and this is just a gentle reminder of that request. If you have completed the survey throw this note away, if you haven't throw this note away after you complete the survey.

Thanks.

FP/vt

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8118 Math-Sciences Building
University of California
Los Angeles, California 90024

DEC 23 1983